If so, the position in the Pacific Northwest is far from clear. Most of the plants would fall into what has been called a diploid *Dryopteris dilatata*. But the true *dilatata* from Europe (*D. austriaca* Jacq. var. *austriaca*) is a tetraploid, and it has been suggested that our Pacific coast *dilatata* is really the diploid species *D. assimilis* S. Walker (in Clapham, Tutin, & Warburg, Brit. Fl. ed. 2. 1962) of the British Isles; this has been indicated not only by the chromosome number but also by chromatography. The true tetraploid *D. spinulosa* does apparently also reach into the Pacific Northwest, for I have seen a specimen that seems to be surely this rather than *D. assimilis* (Orogrande Creek, Clearwater County, Idaho, *Epling & Houck 9349*). The proper name for "*D. spinulosa*" (an illegitimate name) is still uncertain; the name *D. carthusiana* (Vill.) H. P. Fuchs has been accepted recently, but Jermy indicates that there is grave doubt that Villar's type is really this species; this kind of doubt is to be expected in a group like this that is cytologically complex and little understood even after intensive study for many years.—C. V. M.

A REVISED FLORA OF MALAYA, VOL. II—FERNS OF MALAYA, ED. 2, by R. E. Holttum. Gov't. Printing Office, Upper Serangoon Road, Sinagpore, 13. 1966. 653 pp. ca. $7.50+postage.—The original edition of this popular and useful book appeared in 1954 (see this JOURNAL **46**: 158. 1956). Despite one reprinting, it has been out of print for several years. The new edition is largely identical to the first. A few pages, however, are totally redone and Appendix II, a ten-page list of changes and corrections to the first edition, is added. In recent years several studies bearing on the Malayan fern flora have been published, principally by Prof. Holttum and Mrs. B. E. G. Molesworth Allen. Besides incidental changes in many genera, considerable emendations have been made in *Cyathea*, *Dicranopteris*, *Gleichenia*, *Lygodium*, and *Ophioglossum*, and *Diplazium* has been separated from *Athyrium*. Entries in the main text that are amplified or corrected in Appendix II have been marked with an asterisk. Names in Appendix II unfortunately have not been included in the index. For readers who have the

first edition, Appendix II alone may be purchased from the publisher for about $0.75.—D.B.L.

CHROMOSOMES AND SPECIATION IN FERNS, by Kunio Mitui. Sci. Rep. Tokyo Educ. Univ. [Tokyo Kyoiku Daigaku], B, **13**:285–333. 1968.—This is the first comprehensive listing of chromosome numbers of the Japanese ferns, treating 66 genera and 202 species. The mean sizes of the chromosomes of some of the species are stated; these vary from 3 μ to 7.5 μ. A number of presumed triploids, autotetraploids, and allotetraploids were authenticated cytologically, some of which are distinguishable morphologically by spore size, stomatal size, texture, and habitat. Most homosporous ferns have relatively large chromosome numbers compared with phanerogams; Mitui believes that most modern diploid species are in reality old polyploids derived from ancient and extinct species with lower numbers. He considers that a similar chromosome size often indicates relationships among the genera, that the older genera have higher base numbers, that advanced genera have many polyploid or apogamous species, and that primitive genera like *Dennstaedtia* have many aneuploid species.—C. V. M.

BIBLIOGRAPHY TO FLORAS OF SOUTHEAST ASIA, by Clyde F. Reed. Published by the author, 10105 Harford Road, Baltimore, Md. 21234. 1969. 191 pp. $3.50.—Merrill and Walker's useful "A Bibliography of Eastern Asiatic Botany (1938, Supplement, 1960) covered the essentially temperate parts of eastern Asia from China and Taiwan northward, but not tropical southeastern Asia. This new index covers Burma, Laos, Thailand, Cambodia, Viet Nam, Malaya, and Singapore. The title is a little misleading because the work includes not only floras, which are rather few, but chiefly smaller taxonomic papers and also papers on fossil, cultivated, agricultural, and medicinal plants, forest timbers, and taxonomically oriented ecological papers. The bibliography would be more useful if it contained a subject index.—C. V. M.